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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/309,831	05/11/1999	THOMAS C. MIELENHAUSEN	90021-3	8013

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EXAMINER

HUYNH, CONG LAC T

ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/309,831	MIELENHAUSEN, THOMAS C.	
	Examiner Cong-Lac Huynh	Art Unit 2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 20 June 2003.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-22 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____ .
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . 6) Other: _____ .

DETAILED ACTION

1. This action is responsive to communications: appeal brief filed on 6/20/03 to the application filed on 5/11/99.
2. Claims 1-22 are pending in the case. Claims 1, 15, 17 are independent claims.
3. The rejections of claims 1-22 under 35 USC 103 (a) as being unpatentable over Lu have been withdrawn in view of Applicants' arguments.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichbiah (US Pat No. 5,623,406, 4/22/97, filed 3/6/95) in view of Lu et al. (US Pat No. 5,410,475, 4/25/95, filed 4/19/93).

Regarding independent claim 1 and its dependent 9-10, Ichbiah discloses:

- storing in the memory a second data structure encoding a plurality of abbreviations and corresponding words (col 4, lines 53-67: a glossary of abbreviations and the corresponding words and phrases is stored in the system; col 5, line 25 to col 6, line 18; abstract: "retrieving words and phrases from abbreviations" suggests a list of abbreviation and corresponding words and

phrases for retrieving)

- displaying a list of suggested words and phrase corresponding to the selected abbreviation, and receiving input from the user to choose the desired word and phrase for the abbreviation (col 4, lines 53-67: the fact that multiple matching words and phrases for a proposed abbreviation are displayed by the system in the form of option in advisory table upon the entry of characters into the system suggests displaying a list of suggested words and phrases for an abbreviation for selecting; col 12, lines 42-67: more than one choice of matching words are displayed to users for selecting)

Ichbiah does not explicitly disclose:

- storing in the memory a first data encoding a plurality of words and corresponding abbreviations
- selecting a word in the text to be converted to an abbreviation and converting the selected word to a corresponding abbreviation
- selecting an abbreviation in the text to be converted to a word and converting the abbreviation to a word

Instead, Ichbiah discloses that:

- a glossary of abbreviations and corresponding words and phrases (col 5, line 25 to col 6, line 38) which is considered equivalent to the second data structure
- entering of data in the form of abbreviation and standard text entry (col 5, lines 16-18)
- converting the abbreviation to the corresponding phrase (col 6, lines 10-60)

This inherently shows that the entered data in the form of abbreviation is selected to be converted to corresponding phrase using the data in the glossary. In other words, Ichbiah discloses selecting an abbreviation in the text to be converted to a word and converting the abbreviation to a word using the second data structure.

Lu discloses:

- storing the LCN batch in the memory (col 4, lines 60-67)
- those LCNs for which multiple SCNs have been generated are sent to human editors for the selection of the correct SCN (col 30, lines 52-58)

Lu, therefore, suggests storing a list of LCNs and SCNs in the memory of the system since the data should be stored in memory for sending purpose. That means there is a list of words and phrases and the corresponding abbreviation stored in the memory of the system. In other words, Lu suggests storing in a memory a first data structure encoding a plurality of words and corresponding abbreviations.

Lu further discloses recognizing words and replacing them with their official abbreviations (col 30, lines 45-51 and figure 3B) where the words and phrases are selected in the text by users. Lu, therefore, discloses selecting a word to be converted to an abbreviation and converting the selected word to a corresponding abbreviation. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined Lu into Ichbiah to obtain converting from a word and phrase to a corresponding abbreviation and converting from an abbreviation to a corresponding word and phrase since Lu provides the first method and Ichbiah provides the second method where both are for facilitating and helping users in writing

documents (Lu, col 31, lines 1-8; Ichbiah, col 2, lines 58-64).

Regarding claims 2 and 16, Ichbiah discloses editing, updating and customizing the data structures which are words and corresponding abbreviations (col 7, line 55 to col 8, line 47; col 14, lines 3-27; col 11, line 35 to col 12, line 40). Lu also discloses these features (col 3, lines 17-36; col 5, lines 20-68).

Regarding claims 3-6, Ichbiah discloses that the word or an abbreviation is selected by a user using a keyboard command or using a mouse (col 3, lines 63-65; col 6, line 53 to col 7, line 3; col 12, line 60 to col 13, line 5; col 14, lines 29-58).

Regarding claims 7-8, 11-12, Ichbiah discloses:

- displaying a list of suggested abbreviations corresponding to the selected word and receiving input from the user to choose the desired abbreviation (col 5, lines 15-60)
- recognizing an abbreviation to be converted to words and phrases when entering text data (col 5, lines 16-24; col 6, line 33 to col 7, line 3; col 14, line 29 to col 15, line 55)
- receiving input from the user to choose the desired abbreviation corresponding to the phrase or to choose the desired phrase corresponding to the abbreviation (col 12, line 42 to col 13, line 20)
- converting the abbreviations to corresponding words or phrases (col 12, line 42

to col 13, line 20: the input command from the user is for converting an abbreviation to a corresponding word and phrase)

Ichbiah does not explicitly disclose:

- displaying a list of suggested words and phrases corresponding to an abbreviation
- scanning the text for words to be converted to abbreviations and converting words selected by the data processing to corresponding abbreviation
- scanning the text for abbreviations to be converted to words or phrases and

Lu suggests a list of suggested words and phrases corresponding to an abbreviation as mentioned in claim 1 above.

It would have been obvious to an ordinary skill at the time of the invention was made to have modified Ichbiah and Lu to include scanning text for abbreviations to be converted to corresponding words and scanning text for words and phrases to be converted to corresponding abbreviations for the following reason. The fact that the entry of data text is *recognized* for a corresponding abbreviation based on the glossary of selected subject suggests that the entered text *is scanned* for such phrases and abbreviation.

Regarding claims 13-14, Ichbiah discloses selecting an abbreviation from the first data structure (abstract; col 3, lines 50-65), and selecting an abbreviation from the second data structure (col 4, line 53 to col 5, line 60). Ichbiah also discloses that when typing the abbreviation, the corresponding phrase is inserted in the displayed text (figure 3; col 14, line 28 to col 15, line 27). This suggests that a phrase or word corresponding to a

selected abbreviation is inserted into the text at a position selected by the user.

Independent claim 15 includes the same limitations as in claims 1, 9-10, and 13-14, and is rejected under the same rationale.

Independent claim 17 and its dependent claim 22 are for a data processing apparatus for performing the method claims 1, 9-10, and 13, and are rejected under the same rationale.

Claims 18-22 are for a data processing apparatus of method claims 7-8, 11-12, and are rejected under the same rationale.

Response to Arguments

6. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue that Lu only discloses converting word to an abbreviation, not converting an abbreviation to a word (Appeal Brief, page 4).

Examiner agrees.

Ichbiah, cited in this office action, discloses:

- a glossary of abbreviations and the corresponding words and phrases (col 4, lines 53-67; col 5, line 25 to col 6, line 18)

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- the entered text data in the form of abbreviation is converted to corresponding phrase by choosing the desired one from multiple choice of words and phrases (col 5, lines 16-18 and col 6, lines 10-60).

This shows that Ichbiah suggests converting an abbreviation to a word.

Applicants argue that Lu does not teach or suggest:

- storing in a memory a first data structure encoding a plurality of words and corresponding abbreviations
- storing in a memory a second data structure encoding a plurality of abbreviations and corresponding words
- selecting an abbreviation in the text to be converted to a word and converting the abbreviation to a word using the second data structure

(Appeal Brief, page 4)

Examiner agrees that Lu does not teach or suggest:

- storing in a memory a second data structure encoding a plurality of abbreviation and corresponding words
- selecting an abbreviation in the text to be converted to a word and converting the abbreviation to a word using the second data structure

However, since Lu teaches:

- storing the LCN batch in the memory (col 4, lines 60-67)
- *those LCNs for which multiple SCNs have been generated are sent to human editors for the selection of the correct SCN* (col 30, lines 52-58)

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Lu suggests storing a list of LCNs and SCNs in the memory of the system since the data should be stored in memory for sending purpose. That means there is a list of words and phrases and the corresponding abbreviation stored in the memory of the system. In other words, Lu suggests storing in a memory a first data structure encoding a plurality of words and corresponding abbreviations.

Ichbiah, as mentioned above, discloses a glossary of abbreviations and the corresponding words and phrases (col 4, lines 53-67; col 5, line 25 to col 6, line 18). This inherently shows said glossary is stored in a memory. In other words, Ichbiah discloses storing in a memory a first data structure encoding a plurality of abbreviations and corresponding words and phrases.

Ichbiah further discloses:

- a glossary of abbreviations and corresponding words and phrases (col 5, line 25 to col 6, line 38) which is considered equivalent to the second data structure
- entering of data in the form of abbreviation and standard text entry (col 5, lines 16-18)
- converting the abbreviation to the corresponding phrase (col 5, line 25 to col 6, line 60)

This inherently shows that the entered data in the form of abbreviation *is selected* to be converted to corresponding phrase using the data in the glossary. In other words, Ichbiah discloses selecting an abbreviation in the text to be converted to a word and converting the abbreviation to a word using the second data structure.

Applicants argue that Lu does not teach a list of words and corresponding abbreviations.

Examiner respectfully disagrees.

As mentioned above, Lu teaches storing the LCN batch in the memory (col 4, lines 60-67). Lu further teaches that those LCNs for which multiple SCNs have been generated are sent to human editors for the selection of the correct SCN (col 30, lines 52-58). This suggests that a list of words and phrases and the corresponding abbreviation is stored in the memory of the system for sending data.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hirosawa et al. (US Pat No. 4,744,050, 5/10/88).

Kato et al. (US Pat No. 4,944,968, 2/19/91).

Malsheen et al. (US Pat No. 5,634,084, 5/27/97, filed 1/20/95).

Jacobs et al. (US Pat No. 5,860,653, 1/19/99, filed 5/15/95).

Dvorak et al. (US Pat No. 5,781,891, 7/14/98, filed 1/29/96).

Sharman (US Pat No. 5,949,961, 9/7/99, filed 7/19/95).

Houston (US Pat No. 6,459,910 B1, 10/1/02, filed 6/7/95).

Mielenhausen (US Pat No. 6,529,911, 3/4/03, filed 5/27/98).

Barrett et al., Abbreviating words systematically, ACM May 1960, pages 323-324.

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Anquetil et al., Extracting concepts from file names ; a new file clustering criterion, IEEE April 1998, pages 84-93.

Bourne et al., A study of methods for systematically abbreviating English words and names, ACM October 1961, pages 538-552.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cong-Lac Huynh whose telephone number is 703-305-0432. The examiner can normally be reached on Mon-Fri (8:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 703-308-5186. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 707-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9000.

clh
9/4/03



STEPHEN S. HONG
PRIMARY EXAMINER